

E- Business, COMP 2121

Assignment # 1

Objectives

This assignment is provided to evaluate your hands-on experience in creating web page for the e-business. The web page to be developed will enable the customers to place an order for a product online. The web page should be created using HTML plus JavaScript only.

Task

You have to create a web page named as **order.html**. This page should fulfill following requirements.

Layout of the Page

The web page must include the following items or functions:

1. A <title> tag – specifies “Online Ordering” as the page title;
2. An <h1> tag – shows “Online Ordering” at the top of the web page;
3. An <h2> tags - show the name of the product to be ordered;
4. Several labels and fields - collect customer inputs. The requirements of these fields will be detailed in next section;
5. An image of the product;
6. A hyperlink <a> tag - referring to another page which is the term of service (http://www.comp.polyu.edu.hk/~cszzhao/comp2121/service_terms.html). The link should be opened in new page or tab in the browser. This page is already provided, you don't need to implement it. Please make sure the address to which the hyperlink is pointing is correct;
7. A button of “Update total price” and a field showing total price - after clicking the button, a javascript function will be called and calculate the total price based on the amount of products that the user selects, and update the price field;
8. A reset button – allows customer to reset all fields;
9. A submit button displaying “Order Now!”. When this button is clicked, a JavaScript function should be executed to *validate* the inputs from the customer.

You can see a sample layout in [Appendix 2](#).

Your web page should submit the form data to a server if the validation is successful.

Hint:

- The sample layout in [Appendix 2](#) is provided only for the reference. You are encouraged to implement your own design. If you fully imitate the sample, you will get at most 24 marks out of 30 for the “Web page layout design and clarity/tidiness” criteria.
- You are suggested to use a table to implement the layout of the form.
- You can use “rowspan” and “colspan” attributes of <td> to implement flexible table layout. Reference:
http://www.w3schools.com/tags/att_td_rowspan.asp
- We didn’t learn div+css in the lab/class, but if you have relevant knowledge, you are free to use this option instead of using a table.

Fields of Form**Table 1 : Fields of the Form and Validation Requirements**

Field name	Description and requirement
name	<ul style="list-style-type: none"> • Name of the customer. • Cannot be empty. <p><i>Hint: Use “input” tag.</i></p>
phone	<ul style="list-style-type: none"> • Phone number of the customer. • Only number strings of 8 digits are allowed. • Cannot be empty. <p><i>Hint: Use “input” tag.</i></p>
email	<ul style="list-style-type: none"> • The email address of customer. • Can be empty, but if it is input, only valid email address is allowed. <p><i>Hint: Use “input” tag.</i></p>
At least one set of options you would like to provide	<ul style="list-style-type: none"> • You should provide at least one set of options for the customer. For example, “select a color” and/or “select a size”, etc. Each set of the options should contain limited choices for the user. • You are free to use any name and pre-defined values for such input(s). <p><i>Hint: Use “select” or “radio” tag.</i></p>
amount	<ul style="list-style-type: none"> • The amount of product(s) the customer wants to order. • Each user should have limited quotas for one order. For example, the customer can only select within 1, 2 and 3. <p><i>Hint: Use “select” tag.</i></p>
is_agree	<ul style="list-style-type: none"> • Indicates if the customer agrees with the service terms.

	<ul style="list-style-type: none"> • Must be checked. • Somewhere near this input there should be a hyperlink referring to service terms, as described in “Layout of the Page” (6) <p><i>Hint: Use “checkbox” input type.</i></p>
receive_email	<ul style="list-style-type: none"> • Indicates if the customer agrees to receive emails from the company. • Can be checked or unchecked. <p><i>Hint: Use “checkbox” input type.</i></p>

JavaScript Functions

A. You should provide JavaScript function(s) to validate the following things:

1. The name of the user cannot be empty.
2. The phone number cannot be empty, and **only 8-digit number string** is acceptable.

Hint: Use regular expression to validate phone number.

3. If the email address is input, it must be a valid email address.

Hint: You could use HTML5 or regular expression in JavaScript function to validate email format.

4. User must agree with the service terms.

If validation succeeds, customer inputs should be submitted to the server.

If validation fails, an alert box prompts the input requirements. For example, “Name cannot be empty”, “Please agree with the terms”, etc.

B. You should provide JavaScript function(s) to inform user the total price of current order.

1. The function should be called when user clicks “Update total price” button.
2. The total price should be calculated by $\text{single-item-price} \times \text{amount}$. For simplicity, you may fix the single-item-price whatever options the user selects. For example, the prices for different color or size can be the same. Or you can make it changeable if you wish. However, the total price must be changed according to the amount that the user selects.
3. The result of the *total price* should be updated in the field of price on the page, as described in “Layout of the Page” (7).


4. Following shows an example:

Choose amount (up to 2 for each customer):

HK\$ 5588

Choose amount (up to 2 for each customer):

HK\$ 11176



Change amount and click

Hint:

Use `XXX.innerHTML` to modify the content of an element, where `XXX` represents the DOM of the element you want to change.

Reference: http://www.w3schools.com/jsref/prop_html_innerhtml.asp

Form Data Submission

1. If validation succeeds, customer inputs should be submitted. Otherwise, nothing will be submitted.
2. Your web page needs to use **POST** method to transfer data.
3. The form should be submit to
<http://www4.comp.polyu.edu.hk/~cszzhao/comp2121/assignment1.php>
4. When the given page receives data from your web page, it will show what your page transferred. It is useful to help you debugging. You may find the sample output of the given page in [Appendix 1](#).
5. **Important:** Please ensure the names of the field tags (except for the free options you add yourself) are exactly the same with those in [Table 1](#).

Evaluation Criteria

Please make sure that your assignment works (without generating any unwanted errors) when viewed using *Firefox* or *Google Chrome* browsers. Other web browsers will not be considered during our evaluation for your assignment. It will be best if you can mention the suggested web browser's name in your web page. You may browse the following URLs for web browser installations:

Firefox – www.firefox.com

Google Chrome – www.google.com/chrome

The maximum mark of this assignment is **100**, and the minimum is **zero**. The distribution of the marks is as follow:

Web page layout design and tidiness – **30 marks**

The functionalities provided in the web page (HTML and JavaScript) – **70 marks**

The followings are the details on **how your marks will be deducted.**

Web page layout design and clarity/tidiness (maximum of -20 marks):

1. Untidy or slovenly layout of web page. (max. -10 marks)
2. Incorrect file name (-5 marks)
3. No title is set. (-5 marks)
4. No title is shown at the top of the page. (-5 marks)
5. No image of product is shown. (-5 marks)
6. No title of product is shown. (-3 marks)
7. No indicators explaining which fields are necessary. (-1 mark each)
8. Missing or inappropriate label for the fields (-1 mark each)
9. Missing or incorrect hyperlink to read terms of service. (-5 marks)
10. The hyperlink to terms of service is not opened in new window or tag. (-2 marks)
11. No “Reset” button. (-5 marks)

The functionalities in page (HTML and JavaScript) (maximum of -80 marks):

1. Missing fields of input mentioned in *Table 1*. (-10 marks each)
2. No selection for customer to choose amount. (-5 marks)
3. No selection for customer to choose different options. (-5 marks)
4. No checkbox for accepting the terms. (-5 marks)
5. No checkbox for accepting email promotions. (-5 marks)
6. Missing or incorrect names of input fields as shown in *Table 1*. (-5 marks each)
7. Missing “Order now!” button or no way to submit data. (-40 marks)
8. Missing “Update total price” button or failing to update the total price according to the amount. (Max. -20 marks)
9. Failing to validate non-empty fields. (-10 marks each)
10. Failing to validate phone number format or email format. (-10 marks each)
11. Failing to validate the agreement with service terms. (-10 marks)
12. Submitting form to the server even if the validation fails. (-10 marks)
13. The error message when receiving invalid input is not clear. For example, user does not know which input is wrong even after reading the message. (-10 marks each)

Submission

1. The submission **deadline** is at **11:55 pm sharp on Oct 11, 2014**.
2. You should zip your assignment and submit it to BlackBoard.
3. Your assignment should contain order.html and the product image. If your implementation requires other files (such as separate .js file or readme file), you should also attach them.
4. You can update your assignment before the deadline. We will only use the latest/last version for the evaluation.
5. Late submission will receive penalty of **10 marks per day**. Submission later than 7 days after deadline will not be accepted.
6. In order to avoid the network delay or time difference between your computer and BlackBoard server, you should **always submit a several minutes earlier** than deadline.

Plagiarism

All the required techniques for this assignment are mentioned in the lab materials, and discussed in the lab sessions. Students should be able to complete this assignment **within several hours by themselves individually**. If you meet any problem, you are encouraged to discuss with your classmates and TAs, but plagiarism is absolutely not allowed.

If the similarity of two submissions is **80% or more**, it will be counted as plagiarism. Incidents of plagiarism are taken very seriously in our university. Students will not be awarded any mark if their assignments are evaluated as being plagiarized. All such cases may also be escalated to higher management of our department.

Enquiry

You are welcome to contact Jason (jason.zhao@connect.polyu.hk) if you have any problem relating to assignment #1. You can also approach the lecturer during or after the lab sessions for any problems relating to assignment or evaluation.

Appendix

1. The sample output from the server page

Thank you for your order!

Dear Customer,

You have successfully ordered our product. Following is your order information:

Name: **Jason**
 Phone No.: **12345678**
 Email Address: **abc@abc.com**
 Amount: **1**
 You **do not agree** with the service terms.
 You **agree** to receive our emails.

Other options:

color: **Space Grey**
 storage: **64GB**

Thank you for your purchase! We will deliver your product as soon as possible.


Sincerely yours,
 COMP2121

This page is provided for you to examine your form data, and you don't need to implement it. Please make sure your names of fields are correct and action of the form is exactly <http://www4.comp.polyu.edu.hk/~csz Zhao/comp2121/assignment1.php>

2. The sample layout of delivery.html

The following is a sample layout only. You are encouraged to have your own design. **You can only get at most 24 marks out of 30 in the criteria of "Web page layout design and clarity/tidiness" if you fully imitate this sample page.**

Online Ordering



iPhone 6

*Name of customer:

*Phone No.: (8-digit number)

Email address:

Choose a color:
 Silver Gold Space Grey

Choose storage:
 16GB 64GB 128GB

Choose amount (up to 2 for each customer):

HK\$ 5588

* I agree with the terms of product delivery service (Click [here](#) to refer to the service terms).
 I would like to receive emails for new products and promotions.

* Necessary fields.